#### RAW SEQUENCE LISTING

-1-1

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number:

Source:

Date Processed by STIC:

ENTERED



**IFWP** 

DATE: 06/27/2006 RAW SEQUENCE LISTING PATENT APPLICATION: US/10/583,503 TIME: 12:24:22

Input Set : A:\15270C000110US.ST25.txt Output Set: N:\CRF4\06272006\J583503.raw

```
3 <110> APPLICANT: Arumugham, Rasappa
              Prasad, A. Krishna
      6 <120> TITLE OF INVENTION: Methods of Producing Immunogenic A? Peptide Carrier
Conjugates
      8 <130> FILE REFERENCE: 15270C-000110US
C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/583,503
C--> 11 <141> CURRENT FILING DATE: 2006-06-16
     13 <150> PRIOR APPLICATION NUMBER: WO PCT/US2004/044093
     14 <151> PRIOR FILING DATE: 2004-12-17
     16 <150> PRIOR APPLICATION NUMBER: US 60/530,481
     17 <151> PRIOR FILING DATE: 2003-12-17
     19 <160> NUMBER OF SEQ ID NOS: 54
     21 <170> SOFTWARE: PatentIn version 3.3
     23 <210> SEQ ID NO: 1
     24 <211> LENGTH: 6
     25 <212> TYPE: PRT
     26 <213 > ORGANISM: Homo sapiens
     28 <400> SEQUENCE: 1
     30 Asp Ala Glu Phe Arg Cys
     31 1
     34 <210> SEQ ID NO: 2
     35 <211> LENGTH: 8
     36 <212> TYPE: PRT
     37 <213> ORGANISM: Homo sapiens
     39 <400> SEQUENCE: 2
     41 Asp Ala Glu Phe Arg His Asp Cys
     42 1
     45 <210> SEQ ID NO: 3
     46 <211> LENGTH: 10
     47 <212> TYPE: PRT
     48 <213> ORGANISM: Homo sapiens
     50 <400> SEQUENCE: 3
     52 Asp Ala Glu Phe Arg His Asp Ser Gly Cys
     53 1
     56 <210> SEQ ID NO: 4
     57 <211> LENGTH: 13
     58 <212> TYPE: PRT
     59 <213> ORGANISM: Homo sapiens
     61 <400> SEQUENCE: 4
     63 Asp Ala Glu Phe Arg His Asp Ser Gly Tyr Glu Val Cys
    64 1
                                             10
    67 <210> SEQ ID NO: 5
     68 <211> LENGTH: 10
     69 <212> TYPE: PRT
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## RAW SEQUENCE LISTING PATENT APPLICATION: US/10/583,503 DATE: 06/27/2006 TIME: 12:24:22

Input Set : A:\15270C000110US.ST25.txt
Output Set: N:\CRF4\06272006\J583503.raw

F 4

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70 <213> ORGANISM: Homo sapiens
72 <400> SEQUENCE: 5
74 Asp Ala Glu Phe Arg Gly Ala Gly Ala Cys
75 1
                                        10
78 <210> SEQ ID NO: 6
79 <211> LENGTH: 12
80 <212> TYPE: PRT
81 <213> ORGANISM: Homo sapiens
83 <400> SEQUENCE: 6
85 Asp Ala Glu Phe Arg His Asp Gly Ala Gly Ala Cys
86 1
                   5
                                        10
89 <210> SEQ ID NO: 7
90 <211> LENGTH: 14
91 <212> TYPE: PRT
92 <213> ORGANISM: Homo sapiens
94 <400> SEQUENCE: 7
96 Asp Ala Glu Phe Arg His Asp Ser Gly Gly Ala Gly Ala Cys
                                        10
97 1
100 <210> SEQ ID NO: 8
101 <211> LENGTH: 17
102 <212> TYPE: PRT
103 <213> ORGANISM: Homo sapiens
105 <400> SEQUENCE: 8
107 Asp Ala Glu Phe Arg His Asp Ser Gly Tyr Glu Val Gly Ala Gly Ala
108 1
                                         10
                                                              15
111 Cys
115 <210> SEQ ID NO: 9
116 <211> LENGTH: 13
117 <212> TYPE: PRT
118 <213> ORGANISM: Homo sapiens
120 <400> SEQUENCE: 9
122 Val Glu Tyr Gly Ser Asp His Arg Phe Glu Ala Asp Cys
123 1
                                         10
126 <210> SEQ ID NO: 10
127 <211> LENGTH: 4
128 <212> TYPE: PRT
129 <213> ORGANISM: Homo sapiens
131 <400> SEQUENCE: 10
133 Gly Ala Gly Ala
134 1
137 <210> SEQ ID NO: 11
138 <211> LENGTH: 13
139 <212> TYPE: PRT
140 <213> ORGANISM: Homo sapiens
142 <400> SEQUENCE: 11
144 Pro Lys Tyr Val Lys Gln Asn Thr Leu Lys Leu Ala Thr
145 1
                                         10
148 <210> SEQ ID NO: 12
149 <211> LENGTH: 13
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# RAW SEQUENCE LISTING PATENT APPLICATION: US/10/583,503 DATE: 06/27/2006 TIME: 12:24:22

Input Set : A:\15270C000110US.ST25.txt
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150 <212> TYPE: PRT
     151 <213> ORGANISM: Homo sapiens
     154 <220> FEATURE:
     155 <221> NAME/KEY: misc feature
     156 <222> LOCATION: (3)..(3)
     157 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
     159 <400> SEQUENCE: 12
W--> 161 Ala Lys Xaa Val Ala Ala Trp Thr Leu Lys Ala Ala Ala
     162 1
                                              10
     165 <210> SEQ ID NO: 13
     166 <211> LENGTH: 16
     167 <212> TYPE: PRT
     168 <213> ORGANISM: Homo sapiens
     170 <400> SEQUENCE: 13
     172 Glu Lys Lys Ile Ala Lys Met Glu Lys Ala Ser Ser Val Phe Asn Val
     173 1
                                              10
                                                                   15
     176 <210> SEQ ID NO: 14
     177 <211> LENGTH: 10
     178 <212> TYPE: PRT
     179 <213> ORGANISM: Homo sapiens
     181 <400> SEQUENCE: 14
     183 Phe Glu Leu Leu Thr Arg Ile Leu Thr Ile
     184 1
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     187 <210> SEQ ID NO: 15
     188 <211> LENGTH: 19
     189 <212> TYPE: PRT
     190 <213> ORGANISM: Homo sapiens
     192 <400> SEQUENCE: 15
     194 Asp Gln Ser Ile Gly Asp Leu Ile Ala Glu Ala Met Asp Lys Val Gly
     195 1
                                              10
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     198 Asn Glu Gly
     202 <210> SEQ ID NO: 16
     203 <211> LENGTH: 14
     204 <212> TYPE: PRT
     205 <213> ORGANISM: Homo sapiens
     207 <400> SEQUENCE: 16
     209 Gln Val His Phe Gln Pro Leu Pro Pro Ala Val Lys Leu
     210 1
                                              10
     213 <210> SEQ ID NO: 17
     214 <211> LENGTH: 15
     215 <212> TYPE: PRT
     216 <213> ORGANISM: Homo sapiens
     218 <400> SEQUENCE: 17
     220 Gln Tyr Ile Lys Ala Asn Ser Lys Phe Ile Gly Ile Thr Glu Leu
     221 1
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                                              10
     224 <210> SEQ ID NO: 18
     225 <211> LENGTH: 21
     226 <212> TYPE: PRT
     227 <213> ORGANISM: Homo sapiens
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### RAW SEQUENCE LISTING DATE: 06/27/2006 PATENT APPLICATION: US/10/583,503 TIME: 12:24:22

Input Set : A:\15270C000110US.ST25.txt
Output Set: N:\CRF4\06272006\J583503.raw

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```
229 <400> SEQUENCE: 18
231 Phe Asn Asn Phe Thr Val Ser Phe Trp Leu Arg Val Pro Lys Val Ser
232 1
                                         10
235 Ala Ser His Leu Glu
236
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239 <210> SEQ ID NO: 19
240 <211> LENGTH: 15
241 <212> TYPE: PRT
242 <213> ORGANISM: Homo sapiens
244 <400> SEQUENCE: 19
246 Lys Gln Ile Ile Asn Met Trp Gln Glu Val Gly Lys Ala Met Tyr
247 1
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                                                              15
                                         10
250 <210> SEQ ID NO: 20
251 <211> LENGTH: 51
252 <212> TYPE: PRT
253 <213> ORGANISM: Homo sapiens
255 <400> SEQUENCE: 20
257 Asp Ala Glu Phe Arg His Asp Gln Tyr Ile Lys Ala Asn Ser Lys Phe
258 1
261 Ile Gly Ile Thr Glu Leu Cys Phe Asn Asn Phe Thr Val Ser Phe Trp
262
                                     25
                20
265 Leu Arg Val Pro Lys Val Ser Ala Ser His Leu Glu Asp Ala Glu Phe
266
            35
                                 40
269 Arg His Asp
        50
270
273 <210> SEQ ID NO: 21
274 <211> LENGTH: 42
275 <212> TYPE: PRT
276 <213> ORGANISM: Homo sapiens
278 <400> SEQUENCE: 21
280 Asp Ala Glu Phe Arg His Asp Ser Gly Tyr Glu Val His His Gln Lys
281 1
                                                              15
                                         10
284 Leu Val Phe Phe Ala Glu Asp Val Gly Ser Asn Lys Gly Ala Ile Ile
285
                20
                                     25
                                                          30
288 Gly Leu Met Val Gly Gly Val Val Ile Ala
289
            35
                                 40
292 <210> SEQ ID NO: 22
293 <211> LENGTH: 22
294 <212> TYPE: PRT
295 <213> ORGANISM: Homo sapiens
297 <400> SEQUENCE: 22
299 Asp Ala Glu Phe Arg His Asp Gln Tyr Ile Lys Ala Asn Ser Lys Phe
300 1
                                         10
303 Ile Gly Ile Thr Glu Leu
304
                20
307 <210> SEQ ID NO: 23
308 <211> LENGTH: 28
309 <212> TYPE: PRT
310 <213> ORGANISM: Homo sapiens
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### RAW SEQUENCE LISTING PATENT APPLICATION: US/10/583,503 DATE: 06/27/2006 TIME: 12:24:22

Input Set : A:\15270C000110US.ST25.txt
Output Set: N:\CRF4\06272006\J583503.raw

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```
312 <400> SEQUENCE: 23
     314 Asp Ala Glu Phe Arg His Asp Phe Asn Asn Phe Thr Val Ser Phe Trp
     315 1
                                                                   15
     318 Leu Arg Val Pro Lys Val Ser Ala Ser His Leu Glu
     319
                     20
                                          25
     322 <210> SEQ ID NO: 24
     323 <211> LENGTH: 43
     324 <212> TYPE: PRT
     325 <213> ORGANISM: Homo sapiens
     327 <400> SEQUENCE: 24
     329 Asp Ala Glu Phe Arg His Asp Gln Tyr Ile Lys Ala Asn Ser Lys Phe
     330 1
                          5
                                              10
                                                                   15
     333 Ile Gly Ile Thr Glu Leu Phe Asn Asn Phe Thr Val Ser Phe Trp Leu
     334
                     20
                                          25
                                                               30
     337 Arg Val Pro Lys Val Ser Ala Ser His Leu Glu
     338
                 35
                                      40
     341 <210> SEQ ID NO: 25
     342 <211> LENGTH: 22
     343 <212> TYPE: PRT
     344 <213> ORGANISM: Homo sapiens
     346 <400> SEQUENCE: 25
     348 Glu Phe Arg His Asp Ser Gly Gln Tyr Ile Lys Ala Asn Ser Lys Phe
     349 1
                                              10
                                                                   15
     352 Ile Gly Ile Thr Glu Leu
     353
                     20
     356 <210> SEQ ID NO: 26
     357 <211> LENGTH: 20
     358 <212> TYPE: PRT
     359 <213> ORGANISM: Homo sapiens
     362 <220> FEATURE:
     363 <221> NAME/KEY: misc feature
     364 <222> LOCATION: (3)..(3)
     365 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
     367 <400> SEQUENCE: 26
W--> 369 Ala Lys Xaa Val Ala Ala Trp Thr Leu Lys Ala Ala Ala Asp Ala Glu
     370 1
                                                                   15
                                              10
     373 Phe Arg His Asp
     374
                     20
     377 <210> SEQ ID NO: 27
     378 <211> LENGTH: 34
     379 <212> TYPE: PRT
     380 <213> ORGANISM: Homo sapiens
     383 <220> FEATURE:
     384 <221> NAME/KEY: misc feature
     385 <222> LOCATION: (24)..(24)
     386 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
     388 <400> SEQUENCE: 27
     390 Asp Ala Glu Phe Arg His Asp Asp Ala Glu Phe Arg His Asp Asp Ala
     391 1
                                                                   15
                                              10
```

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 06/27/2006
PATENT APPLICATION: US/10/583,503 TIME: 12:24:23

Input Set : A:\15270C000110US.ST25.txt
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#### Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each/sequence which presents at least one n or Xaa.

Seq#:12; Xaa Pos. 3 / Seq#:26; Xaa Pos. 3 / Seq#:27; Xaa Pos. 24 Seq#:28; Xaa Pos. 3 /

Seq#:29; Xaa Pos. 10

#### Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:43,44,45,46,47,48,49,50,51,52,53,54

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/583,503

DATE: 06/27/2006

TIME: 12:24:23

Input Set : A:\15270C000110US.ST25.txt
Output Set: N:\CRF4\06272006\J583503.raw

L:10 M:270 C: Current Application Number differs, Replaced Application Number L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date L:161 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0 L:369 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:0 L:394 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:16 L:415 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0 L:440 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:0

3 **6** 9 p 6 9